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**NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY**
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November 1999 99-7

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SPEAKER'S NIGHT!

The first speaker of the new millennium will be Holly Martelle, doctoral student at the University of Toronto. Her talk is entitled "***A New Look at Huron Ceramic Traditions: Function, Individual Styles and the Organization of Production***". So come one, come all to the London Museum of Archaeology this January 13th .

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As always, our meeting will be held at 8 pm at the London Museum of Archaeology, 1600 Attawandaron Road, near the corner of Wonderland & Fanshawe Park Road, in the northwest part of the city.

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Individual	$18.00
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EXECUTIVE REPORT

At last, there is something to report! A new (well, almost new) executive has been elected. It was long past time that the tired old "has beens" were replaced by some fresh blood. The new President (I hope her arm is on the mend) is Christine Nelson. The new Vice-President is Paul O'Neal. This is Paul's first stint on the executive. Chris Ellis, a real glutton for punishment, will take over the task of Treasurer. Hearty thanks go to out to Harri Matilla, who served as Treasurer for the past several years. His fastidious book-keeping will be missed. Thankfully, Karen Matilla has agreed to stay on as Secretary. We are also short of Directors. Anyone interested in this position can contact a member of the executive. Finally, much to the dismay of the current editors of KEWA, no one has volunteered to take over this onerous task. I'm joking, of course, it's really fun and exiting position, you should try it! Really!

SOCIAL REPORT

The Christmas party was a big success. This year's event was hosted by Paul O'Neal, thank you kindly. A good time was had by all participants. There was enough food to feed a hundred or so sugar, salt and/or alcohol starved archaeologists.

Chris Ellis is still looking for people to speak at Members Night this February.

EDITORS' REPORT

As ever, the editors are on the prowl for articles. Even brief research notes are welcome. This month's report is by the prolific Paul Lennox. Paul has contributed many great articles to KEWA. The current issue focusses on the excavations at two loci of the Keresturi site.

CHAPTER NEWS

We regret to report that Chapter founding member Bob Calvert passed away just after Christmas. An obituary will appear in the December issue of KEWA courtesy of Bob Pearce. We are also sad to report that Keith Henderson, an avocational archaeologist, died over the holidays. Neal Ferris, who has been working closely with Keith, will contribute an obituary to the December issue. Our condolence go out to both families.

The Keresturi Archaic Sites:
Invisible Subsoil Features and Piece Plotting on the 403 Highway

Paul A. Lennox

The Keresturi Site(s) offer little in the way of culture history at this time, however, some of the problems documented here, specifically those concerning "invisible subsoil features" and the excavation of undisturbed or unplowed archaeological sites in bushlots, continue into the next millennium. Examples of these seemingly rare findings in southwestern Ontario are essential to understanding how to proceed.

INTRODUCTION

The Keresturi Site (AgHc-7), located on Lot 4, Concession III, Burford Township, Brant County, was first recorded in 1980 by an archaeological survey of the proposed Highway 403 Corridor (Williamson et al. 1980) between Brantford and Woodstock, Ontario. During that time, a broad debitage concentration including most of the area between the bush to the south and the east-west oriented fence row to the north (Figure 1) was identified and attributed to both Archaic and Late Woodland occupations. I first visited the site in the fall of 1980 but the narrow field had overgrown and no cultural material was observed. In May of 1981, Mr. Keresturi was contracted to plow the site so that its limits could be redefined later in the summer after weathering and in preparation for salvage excavation. In late July, cultural material was still not evident on the plowed and weathered surface of the site, excepting a small concentration of a few flakes adjacent to the north-central bush edge. This area became one focus of our salvage excavations and was designated AgHc-7a since a second debitage concentration was discovered approximately 50 metres to the southeast of this component in the process of test pitting the adjacent bush area within the proposed right-of way (Figure 2). This small site appears unrelated to the first component and was designated AgHc-7b. The two loci appear to represent distinct occupations and are presented separately in the following sections.

ENVIRONS

Both components of the Keresturi site are situated on sandy soils of glacio-lacustrine origin. In this immediate area, these deltaic sands are superimposed over Port Stanley silt till of the Tillsonburg Moraine which surfaces through the sand slightly north of the sites (Ontario Dept. of Mines, Map No. P. 582). The site areas tilt toward the south where a wet bush constitutes one source of Landon's Creek. Another branch of this creek rises in the Falkland swamp a short distance to the west. Landon's Creek is a tributary of Whiteman's Creek which in turn drains into the Grand River above the city of Brantford.

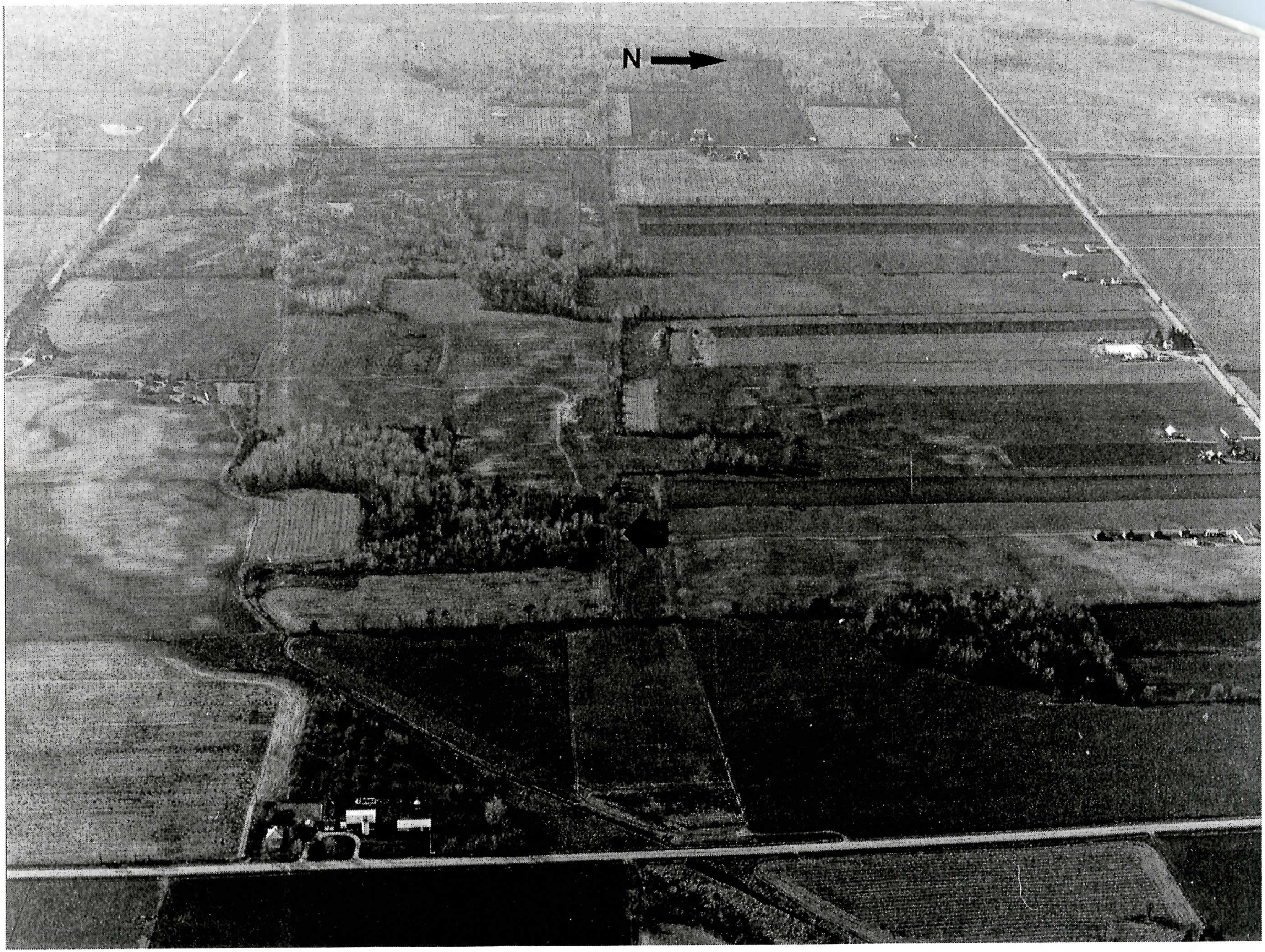

Figure 1. Areal View of the Keresturi Site, Facing West, 1981 (Landon's Creek in foreground, and Innes Site just below to east)

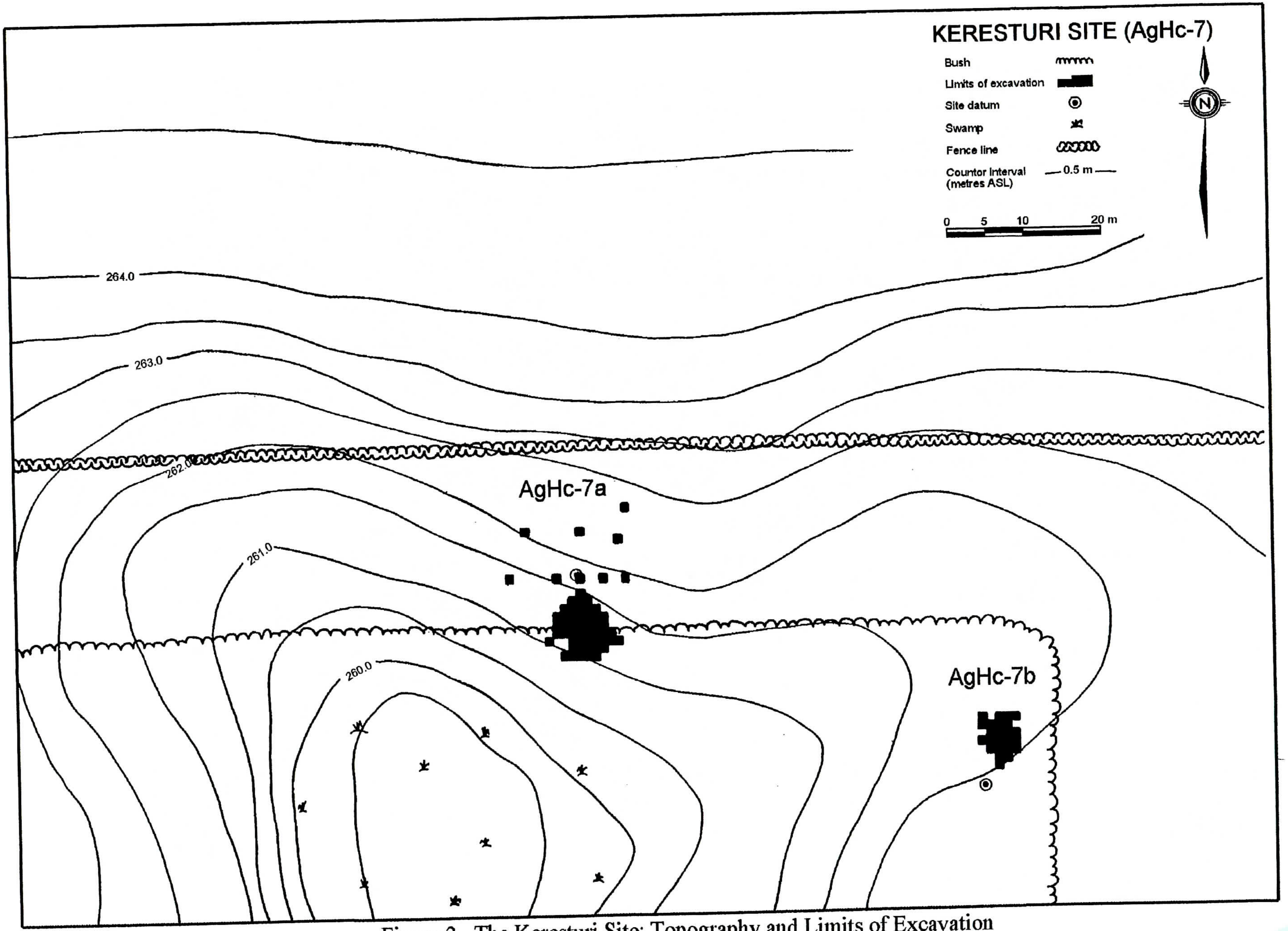

Figure 2. The Keresturi Site: Topography and Limits of Excavation

Early 19th Century land surveys indicate that the site area was characterized as an oak dominated forest with secondary species consisting of Black Ash, Elm, and Basswood (Finley 1978). Recent vegetation studies list such upland forest species as Sugar Maple, White Ash, Black Cherry, Ironwood, Basswood, Shagbark Hickory, Red Oak, Bur Oak, White Oak, and Beech, with a scattering of Bitternut Hickory, Red Maple, Trembling Aspen, Yellow Birch and Butternut. Lowland forest species, as would characterize the woods to the south of the site, include Red Maple, Black Ash, White Ash, Slippery Elm and Trembling Aspen, with Yellow Birch, Silver Maple, Bur Oak, Shagbark Hickory and Basswood scattered throughout. Soft wood species, including White Pine, Cedar and Larch, occur sparingly.

KERESTURI LOCUS A

The Excavations

Contrary to the findings of the 1980 survey which produced 50 pieces of cultural material, the plowed and weathered surface of the site produced little cultural material in 1981. Less than 20 pieces of debitage were found scattered over the broad area, roughly 80 by 25 metres, earlier identified as the site limits. In approximately the middle of this area, however, a small concentration of four flakes was identified and a one metre square unit was excavated which produced 18 flakes. Units excavated to the north of this square produced from one to three flakes per metre square. To the south, debitage density increased and the excavations were expanded to an arbitrary site limit defined by excavation units producing less than 10 flakes per metre square. In this manner a continuous, roughly circular area of nearly 50 square metres was excavated (Figure 3).

Features

An unusual situation occurred on the Keresturi site. This situation was particularly perplexing because it was the first site that the phenomenon was intensively observed by this author -- it has since been noted on almost every archaic site excavated. This puzzling occurrence is the presence of cultural material in what appeared to be sterile subsoil. On this and other previously excavated sites the plowzone within 1 metre square units was shovelled through ¼" mesh screens and at the plowzone-subsoil interface the subsoil surface was shovel-shined or trowelled in search of subsoil features which usually appear as a dark stain or organic concentration in the light subsoil. Lacking any feature outlines or cultural material, further excavation is usually abandoned. At this component of the Keresturi site no feature outlines were observed at the plowzone subsoil interface but cultural material continued into what appeared to be undisturbed subsoil. "Chasing" this cultural debris, some squares were excavated to a maximum depth of 1.24 metres and produced over 400 pieces of lithic debitage before the recovery of material from the unit could be considered complete.

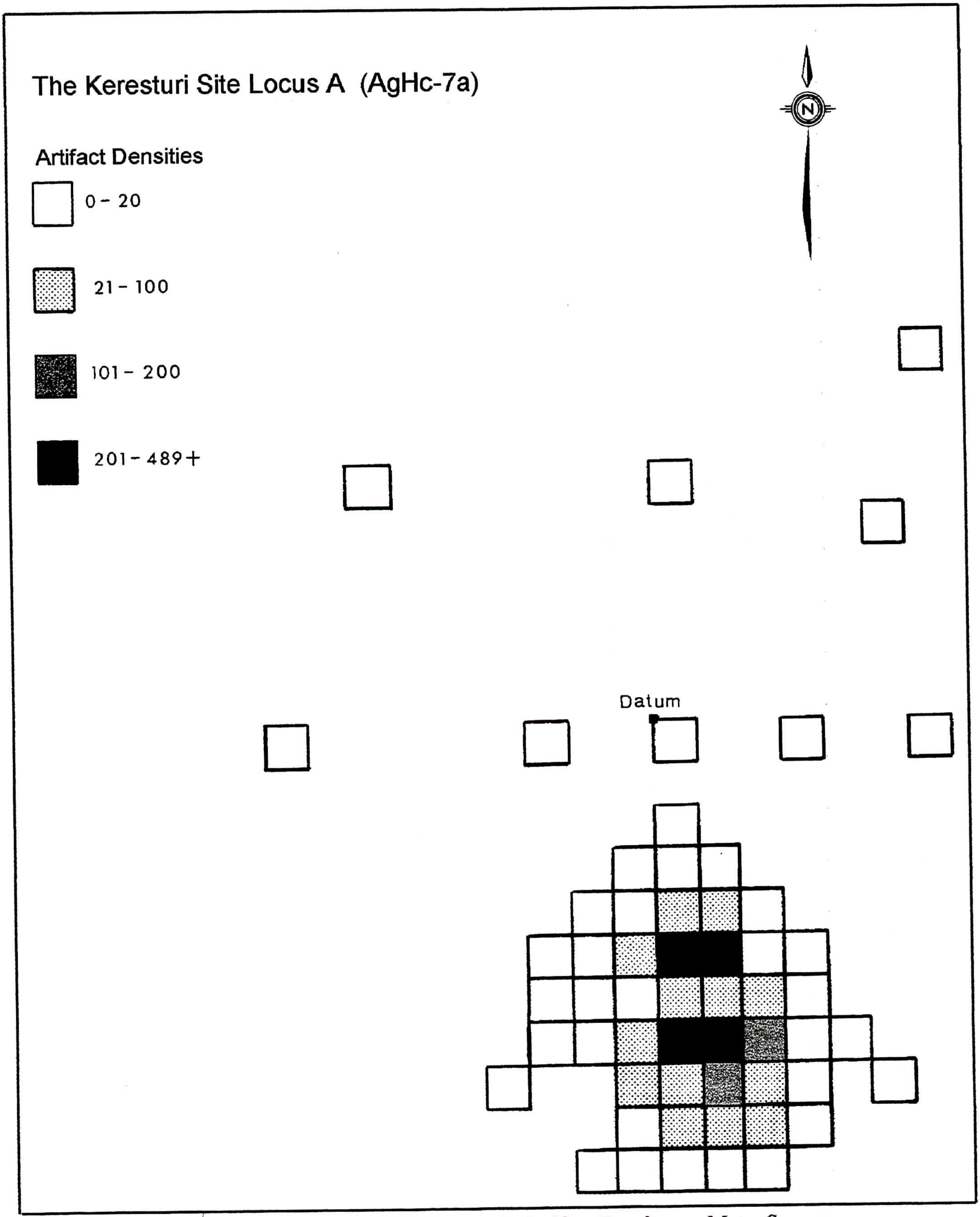

Figure 3. The Keresturi Site Locus A: Artifact Density per Metre Square

Despite numerous attempts to interpret vague subsoil discolourations as possible cultural features, further excavation indicated that the cultural material was as frequent within the "feature" as outside of it. Similarly, attempts to follow two dimensional plan or profile views of these discolourations produced only inconsistent or discrepant patterns in the third dimension. Soil samples amounting to 37 litres were collected from the presumed subsoil feature areas and these were floated but produced only some lithic debitage and very little charcoal in small unidentifiable fragments. As such we can only surmise that large, deep, presumably cultural features and not "tree falls" or some other disturbance, were present at the site but that their organic content had been leached out making them imperceptible.

Judging from our depths of unit excavations and the quantity of cultural debris in the subsoil, the largest and most likely cultural feature(s) was centred at about 6S0W of the grid and measured a little less than a metre in depth (from the base of the plowzone) and nearly 3 metres in diameter. Most of the debitage and tools from the excavations were recovered from this area and a concentration of thermally altered chert debitage in square 7S0W suggests that a hearth area may have been included within the feature.

Artifact Analysis

Lithic Debitage

The 2813 pieces of lithic debitage recovered from this locus (A) were distributed principally within a single concentration located toward the centre of the excavations and in association with the majority of the chert tools from the site. In this area the cultural material was distributed in the subsoil to depths of over one metre (from the plowzone-subsoil interface) but no feature outlines were discernable.

With two exceptions, the entire chipped stone assemblage consists of Onondaga chert. The exceptions include a biface fragment of Kettle Point chert described below, and a slate percussion flake from 9S2E. This small flake has been derived from a waterworn nodule and exhibits no additional signs of use or alteration.

As a measure of the stages of lithic production represented at the site the debitage was analyzed and classified according to primary and secondary reduction stage debitage (Lennox 1982,1986). A high percentage of the assemblage (47.6%) consists of flake fragments (medial or distal segments) that are unidentifiable. The remaining identifiable detritus is dominated by secondary flakes (56.5%) as opposed to primary flakes (43.5%).

Cortex appears on the dorsal surfaces of 131 analyzable flakes or 9.1% of the identifiable assemblage (primary and secondary flakes). Of these, 112 exhibit tabular cortical surfaces indicative of a preference for outcrop sources as opposed to secondary sources for lithic raw materials. Of the 19 flakes which exhibit nodular cortex 15 possess weakly developed nodular cortex over tabular surfaces indicating that the chert had been dislocated from its primary source and had not yet been extensively weathered. Six flakes originated from secondary source materials that had been extensively weathered.

Although chert cores are absent from the assemblage, the presence of decortication flakes indicates that chert in a nearly raw state, likely cores, was brought to the site. The initial reduction of this material on the site resulted in the deposition of primary flakes while the further reduction of flake blanks and likely also core nuclei produced the assemblage of secondary flakes from the site. Judging from the absence of other bifacial tools the bifaces produced were most likely intended as projectile point preforms but there is also a significant number of flake tools represented.

One hundred and thirty-one pieces of lithic debitage appear to have been thermally altered. This process had resulted in their discolouration to an ashy grey-white colour often in conjunction with potlid scars. The presence of potlidding on both the dorsal and ventral surfaces of thermally altered flakes suggests that this exposure to heat was intensive and occurred incidentally, after the flakes had been detached, and was not intended as a method of improving the quality of the raw material. The greatest concentration of thermally altered debitage, which accounts for just over half of this material, occurs in squares 7S0W and 7S1E at about the centre of the tool and debitage concentration. Though this suggests the presence of a hearth in this area, typical hearth feature characteristics were lacking in the soil matrix.

Projectile Points

Three projectile points from the site were found in close proximity in squares 7S0W, 7S1E and 7S2E at a considerable depth into the subsoil (40 to 83 cm). One complete point from 7S0W (Figure 4:1) and one point fragment 7S1E (Figure 4:2) with its tip missing, are similar in form, being of medium length (45 mm), narrow (maximum width of 20 mm for both specimens is at the basal edge) and thin (both have maximum thicknesses of 6 mm). Basal grinding is absent on the complete specimen but present on the fragmentary example. Notable in this regard is the dull basal edge of the complete specimen which is created by the bending fracture initiation of 2 flakes removed from this edge. Closest affinities to these appear in the Otter Creek Points from Vermont (Ritchie 1961), and particularly Big Sandy Points from the Eva site (Lewis and Lewis 1961) which are thought to date between 5000 and 6500 B.P.

The remaining point from 7S2E is complete (Figure 4:3). The point has a maximum length of 47 mm, and is broad bladed, (maximum width at the shoulder = 36 mm) and corner-notched, resulting in pronounced barbs. The basal edge is convex and is not ground. Closest affinities appear with Brewerton Corner-Notched points from New York State (Ritchie 1961), which also date from Middle Archaic times 4000-5000 B.P.

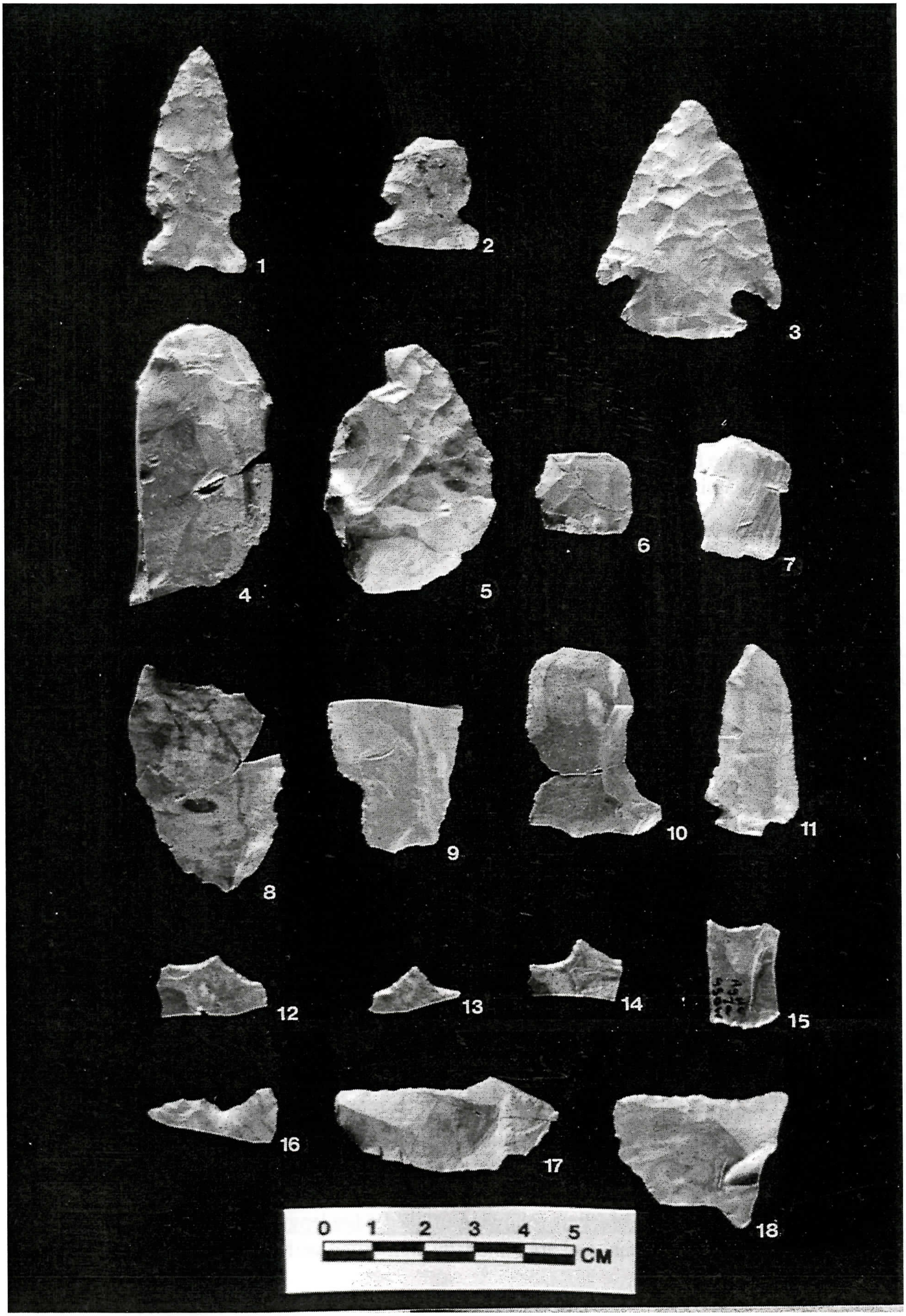

Figure 4. Stone Tools from the Keresturi Site (AgHc-7a)
1-3. Projectile Points (7S0W, 7S1E, 7S2E); 4-6. Bifaces (7S0W, 7S1E-7S0E-F3, 5S1E); 7. Flake Endscraper (9S3E); 8-18. Utilized Flakes (8S1W, 7S3W, 7S1E-8S1E, 7S1W, 8S1E (3),9S0W, 7S1E, (2), 9S1E)

Bifaces

Five additional bifaces and biface fragments were recovered from AgHc-7a. One nearly complete biface excavated from the subsoil of squares 7S1E, 7S0E and F-3 appears to have been intended as a point preform but was rejected, either due to breakage or perhaps because of a thick irregularity on its basal end. Numerous attempts to thin this mass of material have fallen short, resulting in a series of hinge fractures that only accentuate the irregularity. The specimen measures 49, 33 and 13 mm in maximum length, width and thickness respectively. Lateral blade edges are convex and, being unfinished, remain sinuous (Figure 4:5).

Another biface fragment from 5S1E is of Kettle Point chert and represents the only piece of this material recovered from the site. It appears to represent the base of a finished triangular biface.

Three additional biface fragments from 5S1W, 7S0W and 7S0W are too fragmentary to suggest their original form. Their size and sinuous edges however indicate that they are probably fragments of unfinished tools.

Scrapers

A unifacial snubnose scraper was recovered from 9S3E. The characteristic steep scraper retouch occurs on the distal dorsal edge of a primary decortication flake removed from a waterworn cobble of Onondaga chert. Both lateral edges exhibit burin-like breaks initiated from the proximal end of the tool, likely to dull these edges and narrow the tool for hafting. These edges exhibit wear. The specimen measures 23 mm in maximum length, 19 mm in maximum width (along the convex distal edge) and 6 mm in maximum thickness. The bit edge angle is approximately 80° (Figure 4:7).

Utilized and Retouched Flakes

Eighteen chert flakes from the Keresturi A locus possess one or several edges that have been utilized or intentionally retouched resulting in a series of minute (usually less the 2 mm) flake scars. These tend to occur unifacially suggesting use in a scraping mode and most of these flakes occur within the heaviest concentration of debitage on the site and particularly within squares 7S1E, 8S1E, and 9S1E, toward the southeast side of this concentration, suggesting an activity area.

While descriptions of the utilized and retouched flakes are provided in Table 1 and examples are illustrated in Figure 4, two aspects of the assemblage are particularly noteworthy. First is the high incidence of concave utilized edges, perhaps spokeshaves. Most of these occur on flake fragments which have snapped from the edges of larger tools likely during heavy use. Some of the larger fragments exhibit several concavities on the same tool and these often appear on the same flake edge. Where the concave utilized edges are regular in their curvature, the diameter portrayed by the projected arc of the utilized edges can be calculated and suggest diameters of the items being worked. These diameters are shown in brackets following utilized edge length in Table 1. These projected diameters range from 8 to 24 mm and are bimodally distributed with modes at 10 and 20 mm. It is interesting to note that arrow and dart shaft diameters correspond quite closely to the diameters of the smaller spokeshaves recovered from the site (cf. Thomas 1978).

Table 1. Utilized and Retouched Flakes

Provenience	Flake Type	Flake Metrics (mm)			Location	Utilized Edge	
		Length	Width	Thickness		Shape	Length (mm)
9S1E	Primary	41	37	7	Lateral Dorsal	cv	23
9S1W	Primary	22	27	6	Lateral Dorsal	cc	17 (20)
7S1E-8S1E	Primary	37	26	3	Lateral Dorsal	str	13
					Lateral Dorsal	cc	11 (16)
					Lateral Dorsal	cv	13
					Lateral Ventral	cc	6 (10)
					Lateral Ventral	cc	4 (8)
7S1E	Fragment	(11+)	(25+)	3	Distal Dorsal	cc	10 (12)
8S1E	Fragment	(8+)	(12+)	2	? Dorsal	cc	10 (16)
8S1E	Fragment	(8+)	(18+)	2	? Dorsal	cc	9 (24)
					? Dorsal	cc	9 (24)
8S1E	Fragment	(21+)	(12+)	3	? Dorsal	cc	10 (20)
					? ?	cc	10 (20)
9S0W	Fragment	(14+)	21	2	Lateral Ventral	cc	10 (10)
9S2W	Primary	30	25	4	Lateral Dorsal	cc	11 (20)
7S1W	Primary	37	18	3	Lateral Dorsal	cc	13
					Lateral Ventral	cc	15
9S1E	Primary	(34+)	28	6	Lateral Ventral	str	30
7S1E	Primary	41	31	6	Lateral Dorsal	cv	20
8S1W	Primary	(42+)	29	3	Lateral Dorsal	cc	11
5S1E	Primary	25	34	8	Distal Dorsal	cv	14
7S1E	Primary	45	19	4	Lateral Dorsal	cc	18
7S3W	Fragment	(30+)	27	4	Lateral Dorsal	irr	27
					Lateral Ventral	str	15
9S1E	Fragment	(15+)	(13+)	1	? Dorsal	str	15
5S1W	Fragment	(14+)	(6+)	1	? ?	cv	14

Also notable is a retouched flake from 7S1W that resembles, and may in fact represent, a juvenile attempt to produce a projectile point (Figure 4:11). In addition to the lateral dorsal and lateral ventral retouch noted in Table 1, the flake's proximal end is retouched to a point, and two notches have been formed by bifacial retouch at the opposite end of the flake. The flakes distal end, or the "point base", is absent.

KERESTURI LOCUS B

The Excavations

The second component of the Keresturi Site lies about 50 metres to the southeast of the first component (Figure 1 and 2) but the two loci appear unrelated. Excavations here were conducted differently than most other salvage excavation on the 403 corridor due to the undisturbed (unplowed) nature of the site. Here, cultural material was distributed horizontally over an area of slightly more than 25 square metres and this material ranged vertically from the humus layer, where the prehistoric material lay adjacent to pieces of bottle glass, down 20 cm into to what appeared to be sterile subsoil.

Assuming that the site represented a single component and ultimately that the vertical displacement of cultural material would be greater and culturally less significant than horizontal placement, our priorities of point provenience were more concerned with this latter dimension.

The excavations proceeded within one metre squares from the forest floor down. Once the initial task of hand sorting cultural material from the leaves and branches of the uppermost stratum was accomplished, a somewhat compacted humus was exposed and the excavations proceeded using a trowel. Within this compacted soil matrix the horizontal locations of materials discovered in situ were recorded prior to their removal while those recovered from the ¼" mesh screening of backdirt would only be provided with 1 metre square provenience. In the above manner, 25 one metre squares were excavated to include a concentration of flakes and several features. Excavations were extended to an arbitrary site limit generally defined by squares which produced fewer than 20 pieces of debitage. Strict adherence to this arbitrary limit was not followed in several instances where squares with expected low debitage frequencies were occupied by rather mature trees.

Features

Nine features recorded at AgHc-7b vary considerably in definition and form, and also with respect to the amount of cultural material they contained. Some of these may be post occupational disturbances while others are quite convincingly of prehistoric origin. Features 2, 4, 5, 8 and 9, for example, were well defined but contained little associated debitage. They are however, quite consistent in their size and spacing, forming a semi-circular configuration around one of the debitage concentrations on the site. The features are individually described below while their locations within the excavated area are provided in Figure 5.

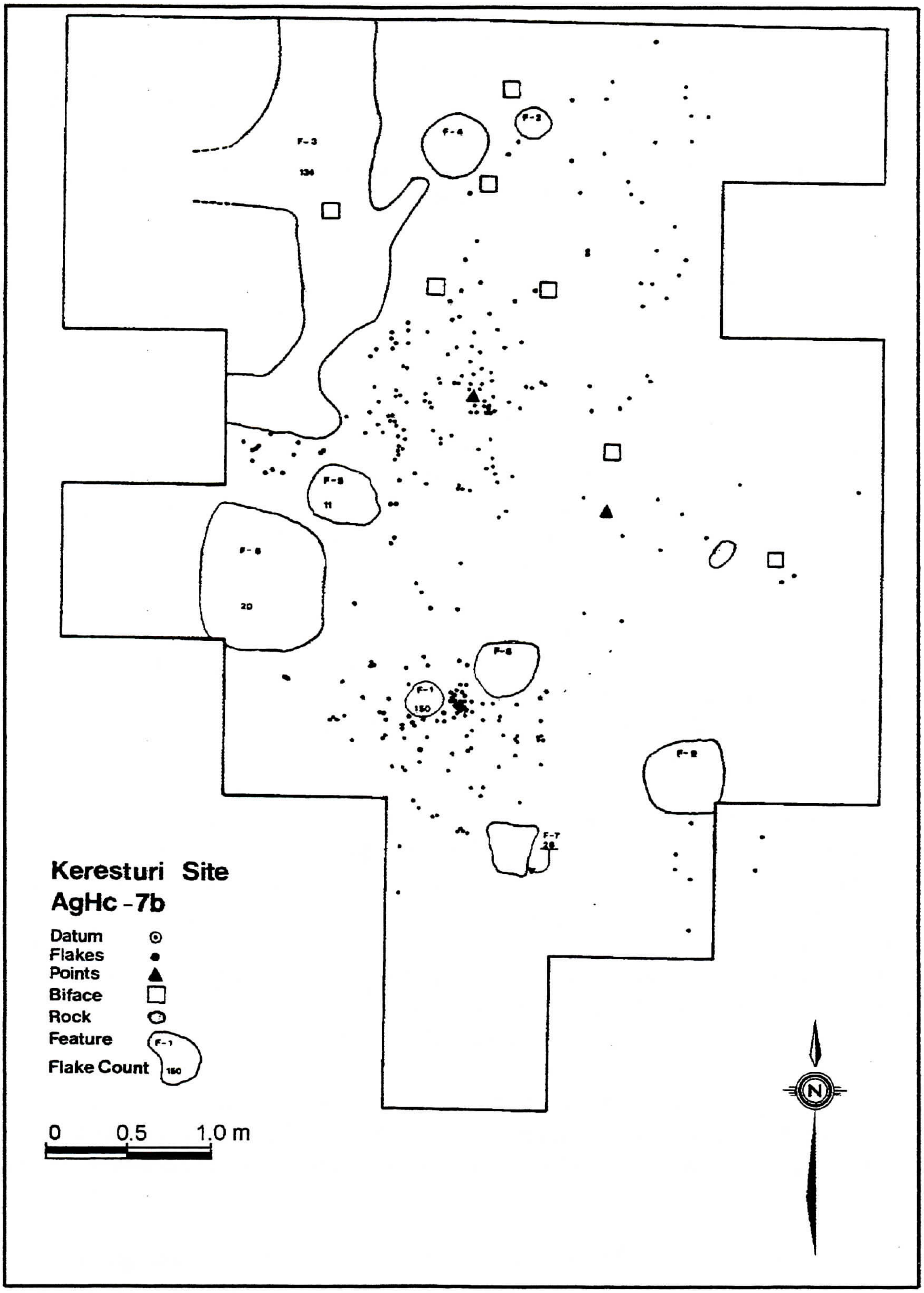

Figure 5. The Keresturi Site Locus B: Limits of Excavation, Features and Piece Plotted Artifacts

Feature 1, located in square 5N1E, was circular in plan view, measuring 24 cm in diameter. In profile, its simple basin shape extended four cm into the subsoil. The feature contained topsoil and charcoal. Of the 150 flakes attributed to the feature, some were derived directly from within the feature outline while others occurred below this outline in what appeared to be sterile subsoil. A two litre float sample obtained from within and below the feature outline produced less than 1 gm of charcoal, none of which is identifiable due to its small size. In addition, 29 chert flakes and fragments were sorted from the heavy fraction of the float sample while more than 100 pieces of micro-debitage were left in the matrix and are excluded from the analysis.

Feature 2, in square 9N1E, was circular in plan view measuring 20 cm in diameter, and basin shaped in profile, measuring 8 cm deep. Its fill consisted of a mixture of topsoil and ash but it contained no cultural material.

Feature 3 was an extensive irregular feature located in the northwest section of the excavations. Profiles of the feature exhibit rodent burrows and root disturbance in its central portion and a narrow (25 to 50 cm wide) and deep (15-30 cm) trough-like configuration in the northern and southern sections. While numerous flakes were recovered from within the feature fill, these were equally common beyond its borders in what appeared to be undisturbed subsoil. I would suggest from this that most of feature 3 is the result of post-occupational disturbances of portions of a debitage rich segment of the site area.

Feature 4, located in the north-central portion of the area excavated, was circular in plan view measuring 40 cm in diameter, and U-shaped in profile, measuring 20 cm in depth. Its fill contained a mixture of topsoil, subsoil, and some partially decayed wood possibly originating from roots. It contained no cultural material.

Feature 5 was oval in plan view measuring 46 cm long and 35 cm wide. U-shaped in profile and 23 cm in depth its fill consisted of topsoil mottled with subsoil. Eleven pieces of lithic debitage were found within the feature fill but the association is debatable, extending 20 cm beyond the north edge of the feature and located stratigraphically above it within the A horizon was a lithic debitage concentration consisting of 36 flakes. Feature 5 may therefore represent a post occupational disturbance which incorporated part of the debitage concentration or conversely the flake concentration may represent the upper portion of Feature 5. The limits of the feature within the A horizon would be difficult to discern because of their similarity in colour and texture.

Feature 6, principally located within square 6N0E includes ash, charcoal and fire cracked rock overlying fire reddened subsoil to a maximum thickness of 12 cm. Associated with the feature however, was some partially carbonized wood and a few pieces (20) of lithic debitage, suggesting that the hearth is a recent feature of the site.

Feature 7 consisted of a thin (2 cm) layer of ash including 32 pieces of debitage located beneath a large granite boulder. The association between the boulder and the debitage concentration is quite convincing as debitage was scarce elsewhere in the area. The significance of this relationship however, is unknown.

Feature 8, in square 5N1E, consisted of a 38 cm diameter, circular, basin shaped feature filled with topsoil and subsoil to a depth of 28 cm. It contained no cultural material.

Slightly oblong in plan view, measuring 45 cm wide and 60 cm long, feature 9 was also basin shaped in profile measuring 22 cm deep. Its fill consisted principally of topsoil to a depth of 22 cm. This feature lacked cultural material.

Artifact Analysis

Lithic Debitage

A total of 1084 pieces of lithic debitage were recovered from the Keresturi B Locus. This consists only of chert flakes and there is no evidence for the use of other materials or manufacturing techniques, other than knapping, represented. The sample was analyzed for material type and source, morphology, thermal alteration and intra site variability.

The debitage assemblage is exclusively of Onondaga chert and the scarcity of cortical debitage suggests that flake or biface blanks, rather than unmodified raw materials, were brought to the site. Although flakes exhibiting cortex are scarce, 17 of the 20 pieces exhibiting cortical material indicate a preference for primary or outcrop sources of raw material. Only three specimens possess nodular cortex suggesting that secondary sources were also utilized.

The classification of debitage into primary and secondary flakes (Lennox 1982, 1986) provides a measure of two major stages in the production of chipped lithic tools. Primary flakes are those derived from cores, while secondary flakes are a byproduct of biface production. Within this assemblage 482 flakes are analyzable. Secondary flakes make up the largest portion of this assemblage representing 71.6% while the primary flakes account for only 28.4%. These figures indicate that the lithic industry at the site emphasized biface shaping and thinning rather than reduction from a core stage. The scarcity of this initial stage in the lithic reduction sequence is supported by the scarcity of cortical debitage as discussed above.

The remaining, and largest, portion of the debitage sample (602 specimens or 55.5% of the total sample) is not identifiable to either of the above morphological classes because of its fragmented state. This high incidence of flake fragments is often attributed to the effects of plowing but in this instance, in an unplowed sample, the high rate of fragmentation is likely attributable to two related factors. One, judging from the identifiable portion of the sample, is the high incidence of secondary flakes on the site. These flakes, because of their thinness, exhibit a higher breakage rate and it may be suggested that the preponderance of secondary flakes from the site, would inflate the fragmented portion of the sample. Second, the secondary flakes on the site are exceptionally large and thin, extreme in this respect, compared to a dozen other components studied in the area. I would expect in this instance that the vast majority of the flake fragments in this sample derive from secondary flakes.

Aside from the above overview of the debitage from the site, the assemblage was divided into its northern and southern portions for comparison. This division took place along the 5 North line of the excavation grid which separates the two debitage concentrations apparent in Figure 5. As seen in Table 2 where the North and South Locus debitage assemblages (without the high frequency of flake fragments) are presented for comparison, both loci are dominated by secondary debitage but there is a greater proportion of primary debitage in the southern locus sample. This distribution may be an indication that there is a slightly greater concern in the southern locus for the reduction of cores. However, the southern locus sample may be biassed as a result of the excavation limits that could have truncated the southwestern extent of this activity area (See Figure 5). Notably, the rate of fragmentation is very similar for both activity areas. It would probably be of interest to explore these differences further.

Table 2. The Keresturi Site (AgHc-7 B) Lithic Debitage Morphology

Site Loci	Primary		Secondary		Total	
	f	%	f	%	f	%
Northern Locus	49	35.8	196	56.8	245	50.8
Southern Locus	88	64.2	149	43.2	237	49.2
Totals	137	100.0	345	100.0	482	100.0

The evidence for thermal alteration was noted in two ways. The discolouration of chert through heat results in a darkening of this material to a dark charcoal or ashy grey colour which often includes a lighter coloured mottling. This frequently occurs with potlidding. The presence of potlid scars on both the dorsal and ventral surfaces of flakes indicated that the thermal alteration was excessive, and occurred after the flake was detached. In other words the alteration noted here was most likely accidental and not intended as a method of improving the quality of the raw material. Of the entire debitage sample 15.1% (164 specimens) show evidence of either form of thermal alteration. Most significant is the distribution of this sample, principally within the northern locus. Here, 146 specimens or 89.0% of the altered sample occurs. Given that the sample is unintentionally or incidentally heat altered, one might surmise the presence of a hearth in the northern locus although none was evident in the excavations.

Projectile Points

Three points and point fragments were recovered from this component of the Keresturi site. One point from 7N1E was recovered in two pieces (Figure 6:1). It is likely of Onondaga chert but it has been burnt to a dark grey colour with white mottling. It is corner notched with an expanding stem and a ground, convex, basal edge. Its blade edges are straight and both barbs are broken. Maximum length, width and thickness for the point is 46, 28 and 8 mm respectively. Hafting width is 15 mm and its basal width is 20 mm. The point conforms well to the Brewerton Corner-notched type (Ritchie 1961).

A point base (Figure 6:2, from Feature 1), appears to have been similar to the complete point described above but this specimen exhibits no basal grinding. Hafting width is 21 mm while its convex base measures 24 mm wide.

The remaining point of Onondaga chert is from 6N2E. It is lacking its basal edge, but appears to have had a contracting stem, sloping shoulders, and convex lateral blade edges (Figure 6:3). In transverse cross-section the point is plano-convex, a form sometimes created by the extensive reduction and possible resharpening from one face. The other face bears relatively few flake scars. This, together with the thickness of the stem, coarseness of the notches, and short blade length, suggests that this point may have been reworked. As such the point would have measured in slight excess of the 40 mm of length remaining, 23 mm in maximum width, and 7 mm in thickness. Stem width is 11 mm.

Bifaces

Among the 10 biface fragments recovered, a reduction continuum appears to be represented by three major stages. The first stage is represented by a single example from 6N3E (Figure 6:9) which might well be classified as a quarry blank. This piece also exhibits multiple hinge fractures along one edge suggesting that it may have seen heavy use, perhaps as a chopping tool.

The next stage is represented by seven biface fragments which mend to form two complete and two partial bifaces. These were recovered from 8N1E, 8N1E-6N0W, 8N1E-8N0W and 8N1W-9N1E. Examples are illustrated in Figure 6:4,7 and 8. These bifaces, which are triangular to ovate-triangular in form, appear to have been rejected during a thinning stage attempt to remove thick irregularities from the lateral blade edges, this often apparently resulting in their breakage. The sinuous edges on these specimens have been "turned" (Crabtree 1972:95) and in some areas ground, apparently in preparation of further flake removals from those edges. The ground platforms are a characteristic that is especially common on large bifacial thinning flakes or secondary flakes from the site.

The third stage is represented by two biface fragments from 6N0W, 7N2E (Figure 6:5,6). These are well thinned and exhibit straight and finely retouched edges. The edges on one specimen (6N0W) are rounded through use while those of the other specimen remain keen. Table 3 provides metrics for the bifaces.

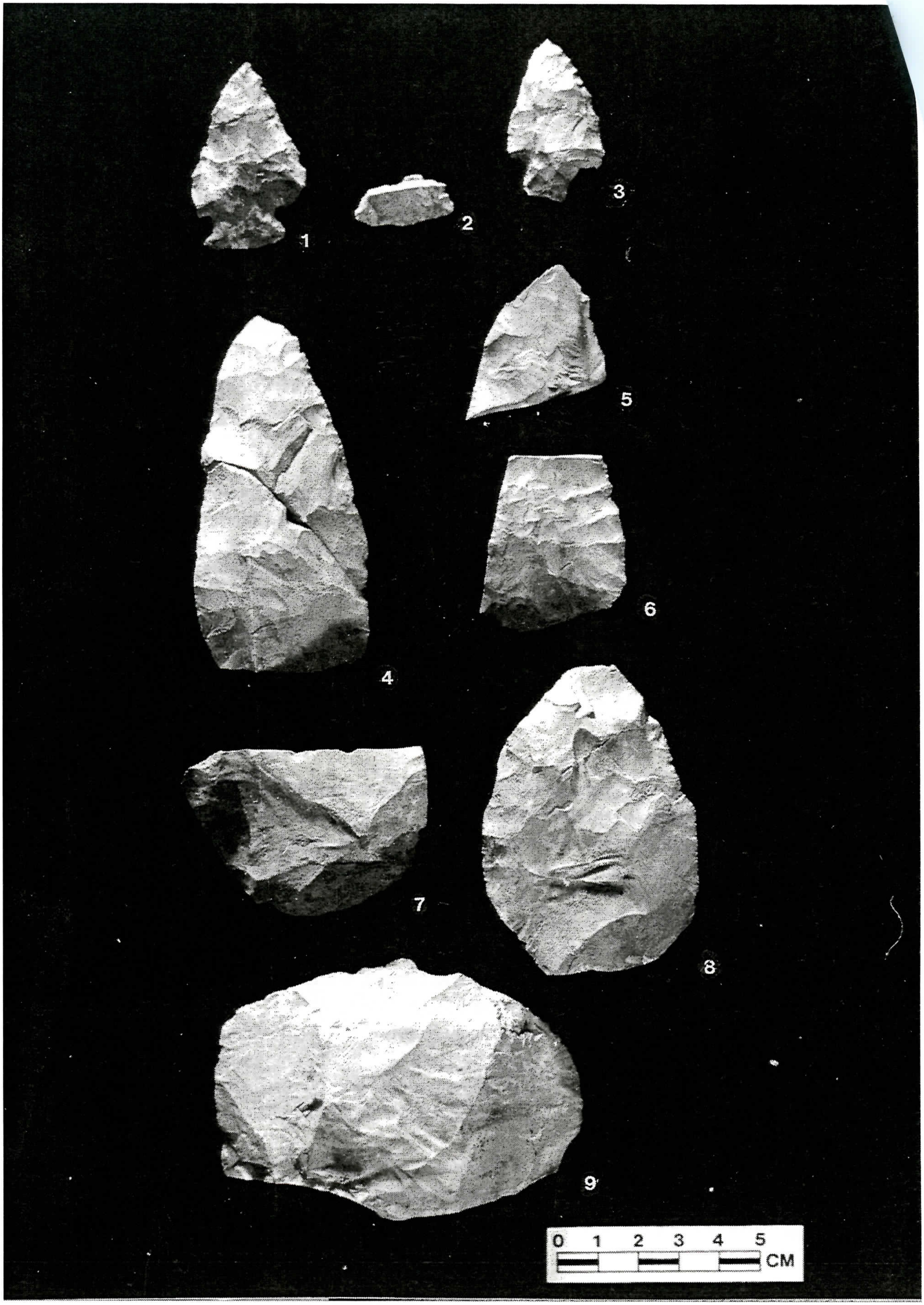

Figure 6. Stone Tools from the Keresturi Site (AgHc-7b)
1-3. Projectile Points 7N1E, 5N1E-F1, 6S2E); 4, 7-8. Stage 3 Bifaces (9N1E-8N1W, 8N1E-6N0W, 8N0W-8N1E); 5-6. Stage 2 Bifaces (6N0W, 7N2E)

Table 3. AgHc-7b Biface Metrics

Description	Provenience	Metrics (mm) *		
		Length	Width	Thickness
Stage I Quarry Blank/Chopper	6N3E	90	63	25
Stage II Biface Preforms	8N1E-8N0W	75	52	13
	8N1W-9N1E	87	42	14
	8N1E-6N0W	(41+)	61	16
	8N1E	(23+)	41	11
Stage III Biface/Knives		(42+)	(38+)	8
		(37+)	(32+)	6

* (+) indicates incomplete measurement due to breakage.

Utilized and Retouched Flakes

Of the six retouched and utilized flakes recovered from this locus, five exhibit unifacial use-wear or fine retouch. On one flake, fine retouch has produced denticulate lateral edges. One retouched flake has multiple concavities, perhaps for, or through, use as a spokeshave. Another blade-like flake, from Feature 1, exhibits extremely acute angled lateral edges that appear damaged through use. Table 4 provides details of these utilized flakes.

CHARRED PLANT REMAINS FROM THE KERESTURI SITE (AgHc-7A and B)

Several bulk soil samples, with a total volume of 49 litres, from features 1,2 and 3 in Locus A and 2 litres of soil from Feature 1 in Locus B were processed by flotation and analyzed to identify any charred plant remains recovered. A single feature contained the only identifiable charred wood found in the samples. Only Feature 2 in Locus A produced charred wood, this totalling 15 grams. Most was too small to identify although 6.21 grams is maple and there is a small quantity of oak (*Quercus* sp.) totalling 0.23 grams.

Table 4. Utilized Flakes

Provenience	Flake Type	Flake Metrics (mm)			Utilized Edge		
		Length	Width	Thickness	Location	Shape	Length
7N0W-8N0W F3	Secondary	44	20	3	Lateral Dorsal	cc	16
					Lateral Dorsal	dc	29
					Distal Dorsal	cv	18
7N0W F3	Secondary	(23+)	19	2	Lateral Dorsal	micro dc	(12+)
					Lateral Dorsal	micro dc	(15+)
7N0W	Primary?	(30+)	22	6	Distal Dorsal	str	16
7N1E	?	(24+)	17	2	Lateral Dorsal	str	17
					Distal Dorsal	str	13
5N1E	Primary	41	31	12	Distal Dorsal	str	13
5N1E F1	Secondary	48	20	4	Lateral bif.	str	36
					Lateral bif.	cv	20

DISCUSSION

Most of the information on the Keresturi sites and collections was gathered in the early 1980's for the Ministry of Transportation in advance of 403 Highway construction between Brantford and Woodstock. Shortly after excavation most of the preceding text was written, collection photo's were taken, and the maps were drawn for submission of a licence report. Looking back on this information is an interesting exercise in itself. While doing so, however, I was often tempted to reexamine the artifacts, field notes and photos, and, while this would be possible to do since those materials are still well curated by MTO, my main purpose here was to highlight several points of interest (and that is not intended as a play on words).

The points recovered from either of the components appear to be Early and Middle Archaic types respectively (cf. Ellis et al. 1990) and we could argue point typology at length (as we have seen in recent KEWA articles). However, the fact is, the sample sizes are small. The tools originally identified as spokeshaves at the A Locus look similar to Paleo Indian flake tools called gravers where the points between the concavities, rather than the concavities themselves, are of interest. If they are indeed gravers, these finely pointed tools were likely used to pierce or engrave a range of softer materials such as hide, wood or bone. Recent usewear studies of multiple gravers suggest use in removing disks from wood, bone or shell (Tomenchuk and Storck 1997). The specimens from Keresturi A appear to have snapped from the edges of larger tools, perhaps also multiple gravers. Similar specimens are found on Paleo Indian sites in the Great Lakes region (cf. Deller and Ellis 1992:68; Tomenchuk and Storck 1997:518) but in the following periods they decline substantially and their presence at Keresturi might support its Early Archaic affinities.

Aside from the details of the tools and lithic debitage recovered, at the A Locus there is one item of particular note, and that is the amount of information that can be found in what appears to be, and is often taken as, "sterile subsoil". The A locus is certainly of interest for the depth that cultural materials were found but it is still not easy to interpret. Could it be a tree throw, a pit house, a semisubterranean sweat lodge? If we came across such findings again we might better proceed by piece plotting the artifacts in three dimensions to help understand what it was we were looking at. This would certainly cost significantly more than it did but it might have made a significant contribution to our understanding of such examples elsewhere.

In our occasional investigation of similar instances over the last two decades, we have found that invisible subsoil features don't simply appear at the topsoil/subsoil interface. (If they did they would not be invisible.) We found that we couldn't assume that we would find them if they were there - we had to look for them! We came to the point where after we had trowelled or shovel-shined the surface of the subsoil "clean" looking for (visible) features and found none, we would often then throw a few extra shovels of "sterile" subsoil through a screen, just as a check. Also, when trowelling or shovelling an excavation unit, the presence of an artifact from the subsoil interface would always "raise an eyebrow" and start us asking questions. A misperception? Did the artifact actually come from the topsoil, a burrow, a disturbance? Or, was this an invisible subsoil feature? We had become so accustomed to seeing subsoil features as students [in fact, it was a part of their definition (again no pun intended)] that it took a while to realize that they could sometimes be difficult to see. We got to a point, especially on Archaic sites, that, on one of the later sites we excavated in the mid 90's, we had difficulty believing that a well-defined (visible!) subsoil feature was actually attributable to the Archaic component we were investigating. It looked too good but was real. Keresturi A was one of our first experiences with invisible subsoil features.

Keresturi B was notable too, particularly because it was undisturbed. It too was one of my first experiences with such a site and we took a cautious approach, horizontally piece plotting the artifacts recovered. It is nice to see the piece plotted artifact distribution which suggest two, contemporaneous, short term, activity areas where lithic reduction appears focussed on the reduction of quarry blanks into projectile points. Perhaps a "retooling" or "hunting" camp.

Fortunately, the cultural material was not deeply buried nor did it appear to represent more than one component. If several components were represented, we probably would not have realized it until it was too late. Had it been a multi-component site and had we realized this early enough in the investigations we might have attempted to extract more information from the site by "fine tuning" our excavation methodology, However, I think that in instances where meticulous excavations have occasionally been conducted on multi-component sites (of course those with "collapsed stratigraphy"), in Ontario and elsewhere, they have rarely been able to convincingly separate the components. The investigations produced little reliable information for the sizeable expenditure of research dollars. I think, like potential models (Lennox 1997a), where archaeologists have convinced proponents that the added expenditure is justifiable, subsequently, they can only argue that this expenditure has produced significant results.

In thinking about Keresturi B and the investigation of various site disturbances, I think that some of our views concerning site significance and destructive elements have changed considerably in the last few decades. Large villages with lots of artifacts and ideal settlement patterns were, and still are, significant for many reasons. Even Archaic sites that had not been ploughed were once preferable, while some that had been ploughed were considered pretty much destroyed. Large Archaic sites, in ideal or at least predictable locations, promised to provide justifiable quantities of data to those who were "spoiled" by the "richness" of some components. With the drive behind CRM archaeology, what we learned in the end was secondary to getting the "problem" out of someone's way.

I think we are finding that some of those smaller, often ploughed, archaeological sites hold some of the answers to questions we are afraid to ask of the larger components. These large components often produce simply "too much" information and it is the small sites, like the Keresturi sites, that are probably too often overlooked for the information potential they actually do possess. While it is surely difficult to revise our culture histories based on the few "type diagnostics" recovered from these sites individually, at least the few specimens that are recovered are likely a "tight" sample from only a few individuals who were doing something there that was quite specific. That is probably why only a few examples of such sites, individually, make little sense. We would probably all agree that we need more examples of these "simple" sites (Kenyon and Lennox 1997, Lennox 1997b).

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The Dunlap Farmstead
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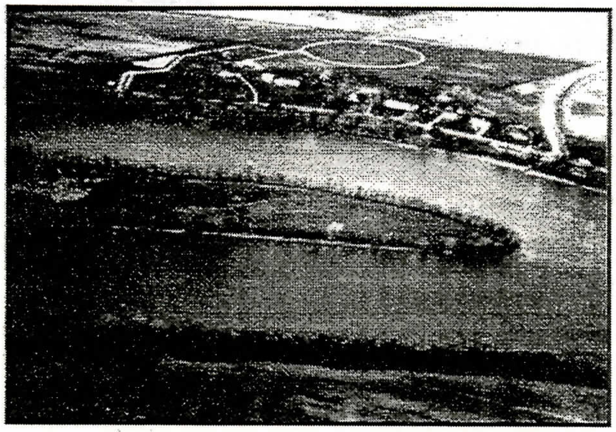

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